



**Southern California Association of
Marine Invertebrate Taxonomists**

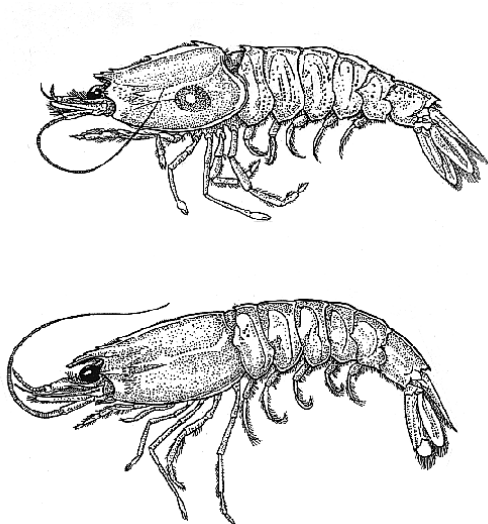
3720 Stephen White Drive
San Pedro, California 90731

February, 1998

SCAMIT Newsletter

Vol. 16, No.10

NEXT MEETING:	Trawl Invert ID Resource Inventory/ Trawl Shrimp
GUEST SPEAKER:	None/ Don Cadien - CSDLAC discussion leader
DATE:	9 March 1998
TIME:	9:30 am - 3:30 pm
LOCATION:	CSDLAC - JWPCP 24501 S. Figueroa St., Carson, CA



Sicyonia penicillata (top) and *S. ingentis*
(from Hendrickx 1995)

MARCH 9 MEETING

Our March meeting will continue consideration of field indentifications of trawl invertebrates. Please come to the meeting with the materials you take into the field for identifying invertebrates. We will compile a list of resources based on what we find in use, and attempt to standardize a set of the best resources available for use in the Bight '98 trawls this summer.

In response to El Niño Don Cadien will introduce some augmented field shrimp ID keys, including southern species which have been found to (or may easily) range into our sampling area. We will also discuss what groups should always be returned to the lab for ID or to verify field ID.

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ARCO FOUNDATION, CHEVRON USA, AND TEXACO INC.

SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

SOUTHERN CALIFORNIA BIGHT PILOT PROJECT REPORTS

The reports of the 1994 regional monitoring, the Southern California Bight Pilot Project, are now available. There are six volumes in the series of reports, the first of which is an Executive Summary distributed free by SCCWRP. Other volumes are \$25 each, or \$100 for the complete set of six volumes. An order blank is attached.

The successor to the 1994 effort, currently being referred to unofficially as "Bight '98" will take place this summer. The index period during which all sampling is scheduled to take place is a seven week period beginning in mid-July. We are already planning for SCAMIT's involvement in this regional effort to be similar to that in the last. We have a role to play in quality assurance and/or quality control of taxonomy in both the benthic and trawl portions of the monitoring.

We have already begun our trawl standardization effort in the February meeting, and it will continue next month. Subsequent meetings will probably be devoted to prestandardization of taxonomic tools and approaches as were those leading up to the summer 1994 SCBPP sampling.

NEW LITERATURE

Several new ostracod species are erected by Kornicker & Nelson 1997 based on samples from Pillar Point Harbor in northern California. It is not clear if these species are known to range into more southern areas, but both are very close to species which we report from southern California. The myodocopids *Euphilomedes morini* and *Rutiderma apex* are described as new. The former is very like *E. longiseta* in shape and furcal structure, so if it does occur here we are in trouble. *Rutiderma apex* is very like *R. judayi* and *R. lomae*, but can be distinguished (although not easily) based on the details of carapace ornamentation. Both new species are described in great detail, and a lengthy redescription of *E. carcharodonta* is also given.

One additional change is introduced (not a new one I might add). *Parasterope barnesi* one of two species in the genus described by Baker (1978) is discussed as *Postasterope barnesi* (in which genus it was placed by Kornicker 1986). We must belatedly adopt this change. Baker's second species, *P. hulingsi*, remains a *Parasterope*.

Drs. Kristian Fauchald and Greg Rouse are now distributing the long awaited reprints of their two new papers on polychaete systematics and cladistics (Fauchald & Rouse 1997 and Rouse & Fauchald 1997). These are both major papers, the former reprising the history of systematic treatment of the group, and reviewing the morphology which provides the basis for the character states used in the later cladistic analysis. It also discusses each of the polychaete families, collating and summarizing information available on each.

The second paper attempts to reevaluate the entire annelid spectrum using cladistic methodology to rationalize higher level organization within the group and to identify unifying synapomorphies for its various component clades. There is far too much in this paper for me to digest and pass on here; I urge you instead to watch for the inevitable discussions on Annelida which will be contributed by readers more qualified than your editor to evaluate and discuss this first stab at a phylum wide cladistic analysis. It can at least be pointed out that the authors found a few things strongly supported within their analysis, while many others were only weakly supported. This points to some deficiencies in the character set on which the analysis is based. Such defects must be expected, and the authors have made strenuous attempts to find their way through the thicket of information from which the characters were assembled. An evaluation of how well they succeeded must await more thorough readings by more knowledgeable polychaete folk.

A cladistic analysis of the octopods has been presented by Voight (1997). She used a suite of morphological characters derived from the reproductive, digestive, circulatory, respiratory, and nervous systems. A few characters of the

musculature and a series of general characters were also included. Relationships of most families were resolved satisfactorily, but the Octopodidae formed a large unresolved group. The analysis supports monophyly of both the finned and finless octopods. *Vampyroteuthis infernalis* was used as a sister taxon to root the trees. Despite success with most groups, the intransigence of the Octopodidae, and only moderate consistency indices, suggest that other characters might clarify or modify the results. Other efforts at cladistic analysis of cephalopods are underway which will include molecular as well as morphological evidence. Preliminary indications are that Voight's results are at odds with some of this as yet unpublished analysis.

Another approach to molecular systematics was reported by Suchanek et al (1997). They used a fragment of a gene for byssal adhesive protein, amplified by PCR, to distinguish between the sibling mussel species *Mytilus galloprovincialis* and *M. trossulus* and their hybrids. Contrary to previous indications that *M. trossulus* did not occur south of Central California, the present authors found *M. trossulus*, *M. galloprovincialis*, and their hybrids and back-crosses to be present in San Diego Bay. They suggest that this *M. trossulus* population is maintained by constant reintroduction of the species with coastal shipping, as the temperature regime in San Diego Bay is generally too warm for it .

The current samples (taken from 29 sites along the west and east margins of the North Pacific) contained no specimens which proved to belong to *M. edulis*. This species has been reliably reported from bay and estuarine habitats along the northeast Pacific coastline in the past, and is almost certainly frequently reintroduced with shipping. It's absence in the present study was not anticipated, and was assumed temporary.

The success (or failure) of recruitments of juveniles to benthic invertebrate populations hinges on a number of factors including early post-settlement mortality. Hunt and Scheibling (1997) review the role of this factor in determining recruitment rate. They conclude that, at present, the rate of early-post

settlement mortality is not predictive of the rate of recruitment. Too many variables remain unaccounted for, and the data base is too heavily dependant on studies of barnacles and tunicates for general patterns to be clear and demonstrable.

Cunha et al (1997) examined the structure of suprabenthic communities on a transect across the Portuguese continental margin from 21 to 299m. Although we do not directly sample this community (which consists primarily of crustaceans), it is closely associated with nearby benthic communities. Many of the members of the suprabenthic community are but temporary migrants from the underlying benthos. Studies of this community at various sites on the European continental margin have been performed for years. These prior studies are used for comparison of the results of the present one, and all can be used as an indication of the type and structure of the community we would find locally should we look.

Eastern Pacific shrimp, including those species which only range into our local waters during strong ENSO events such as the present one, are thoroughly treated by Hendrickx (1995). Although not dealing with the smaller non-commercial shrimps (e.g. hippolytids and alpheidids), this treatment covers virtually all species taken by trawling in California waters.

Keys to families, genera, and species are provided for all treated groups. The illustrations are numerous and informative, with whole body lateral views of nearly all species (see first page of this newsletter for examples). The text and keys are in Spanish, but with the abundance of well annotated figures, and a little practice, this should not prove to be a major impediment even to non-Spanish speakers.

19 FEBRUARY MEETING MINUTES

Dr. Jim Allen of SCCWRP presented to us his thoughts on standardizing trawl identifications. He made the point, as others have before, that trawl

identifications are particularly critical since the materials are usually not retained, and are thus unavailable for later examination. Jim is, of course, approaching the subject from a fish perspective, but fish and invertebrate field identification problems have much in common. He used a draft Field Guide to Trawl-Caught Fishes of Southern California as an example of his suggested organizational structure. It contained samples of various tabular, pictorial, and textual aids to field identification.

Major emphasis was placed on pictorial aids, as they compress a great deal of information into a small space. The arrangement of the information is quite important, with conciseness mandatory. As pointed out by Megan Lilly (CSDMWWD), aids should be kept to a single page whenever possible. Dealing with multiple pages in the cramped confines of a sampling vessel (especially one subjected to rough seas) should be avoided.

Jim emphasized that, since the keys may be used by relatively inexperienced personnel, they must contain at least a minimum of general information. He suggested that each field identification tool provide a whole body illustration of a typical group representative, with all relevant features labeled. An inexperienced user will then be able to properly orient him/herself to the more specific information provided in written, tabular, or pictorial keys. In cases where there is sexual dimorphism which can affect identification, methods of discriminating sex should be discussed and/or illustrated.

As a starting point Jim suggested that a list of the species which might be encountered (based on previous records) should be prepared. Jim distributed a list of invertebrates encountered in the 1994 SCBPP as a draft encountered species list. Don Cadien pointed out that, given the strength and duration of the present ENSO event, it would be advantageous to include species which have not been previously seen in the sampling area, but which are known from adjacent areas to the south. Jim agreed, but felt that such a broader effort merited a lower priority than providing tools for field differentiation of species known to occur in the sampling area.

He offered us a prioritization list to focus preparation efforts in the areas of greatest need and/or greatest probability of completion. First priority was accorded species on the list of taxa previously encountered. Of second priority were species not on the list, but from families known to occur in the area. Species normally taken to the north or south of the Southern California Bight were deemed third priority. All of these species should be from families which have members that are commonly or abundantly represented in trawl surveys. Jim distributed a list of the most abundantly taken species based on 1994 SCBPP data.

Priority should be given to groups where current information is deficient. Families with difficult to identify species (or juveniles) based on results of the 1994 Trawl QA effort should also receive priority treatment. Jim distributed a list of taxa which had presented ID problems in the 1994 SCBPP field effort. Lowest priority was given to groups which did not fit into one of the above categories.

With these stated priorities in mind an ordered list of taxa should be constructed, with highest priority species at it's head.

For each taxon on the list Jim recommended construction of a set of identification aids consisting of :

1. A field (picture) key
2. A lab (text) key (optional)
3. Table of geographic range, depth range, habitat and maximum size
4. Table of taxonomically important characters
5. Similar species (text) and how they can be differentiated from the present one.

He envisions that preparation of these aids will entail 1.) Acquisition and compilation of figures (either drawings or photos); 2.) Acquisition of other supporting information on ranges, sizes, and useful taxonomic characters; and 3.) Construction of field and laboratory keys.

While it was agreed that this was an ordered and

rational approach which would bear fruit in the long run, it was generally thought that the time line for such a complete treatment was much too long to be of use to us this July.

Several participants expressed the belief that much of the needed information was already available, needing only to be marshaled and distributed to Bight '98 participants. With this in mind we scheduled the following (March) meeting to bring together these materials and determine just how much already is done. Without such an assessment our limited time and resources might be devoted to generating redundant tools. We adjourned the morning session on that note.

In the afternoon the group met with Dr. Mary Bergen (SCCWRP) to discuss issues affecting processing of benthic samples in Bight '98. These include 1.) the incorporation of new taxonomists and groups into sample processing, and 2.) the application of lessons learned during the processing of the SCBPP samples and the QC effort associated with it.

In Bight '98 it is likely that there will be additional participants of unknown proficiencies who must be integrated into our regional taxonomic effort. Methods must be devised to allow prequalification of the taxonomists involved. They will be required to meet the same MOQs which were met by participants in the SCBPP. This will be accomplished with test samples, which the new participants will be required to identify. If they prove able to contribute compatible identifications with sufficient accuracy, they are free to participate on an equal footing with the SCBPP tested groups. If systematic errors are detected which bring performance below required levels, efforts at intercalibration and training can be undertaken prior to retesting. If these prove unavailing, the group must be bared from participation in identifications, making their contributions in other areas instead.

Application of these prequalification tests, and acceptance/rejection of participation is in the purview of the Steering Committee, and not of SCAMIT. We may be asked to participate in some

fashion, but we will not be in a lead role.

Since the composition of the new participants is still up in the air (including contractor selection by the County Sanitation Districts of Orange County) Mary will push to get things finalized as soon as possible. Once the list of participants is complete, prequalification can begin. A preliminary time line puts identification of participants at 15 March, a meeting with new participants to distribute standards for pre-qualification and test samples at 1 April. Results of these tests would be due in about 2 weeks (by mid-April). Intercalibration to remove systematic error or retesting should then be completed by 1 May. While this is a short and tight time-line, we must have all participant groups identified and ready to go by the start of the index period. The above schedule would allow several months for additional intercalibration, or prestandardization of participants' taxonomic practice prior to mid-July. Since it would inevitably conflict with some or all participants index period activities, no August SCAMIT meeting will be scheduled.

One of the outcomes of the 1994 QC effort was an appreciation of the time required to apply the protocols adopted as part of the Quality Assurance Plan. The concept of specialization offers the possibility of avoiding much of the QC effort directed to assuring compatibility of identifications provided by different taxonomists. Specialization in all identifications, however, offers virtually fatal logistical problems. Not the least of these is the necessity of guaranteeing revenue neutrality to the major participants when the level of effort in any given taxon cannot be predicted beforehand.

Partial specialization was deemed a more workable and desirable option. If implemented, it will be restricted to those areas which were identified as problems in the 1994 SCBPP project (see Montagne & Bergen 1997). Most of the identified areas involved only a few species, none of them of numerical importance in the community. In several cases, however, problem groups had numerous species of considerable community importance. Prioritizing these for specialist treatment would be

more feasible from a logistic standpoint, and would be a good effort allocation strategy: that is we would get a much larger "bang for the buck". Most of these high priority groups are polychaetes.

Because of the potential logistics problems the decision to implement limited specialization is likely to reside with the Steering Committee, and not in the hands of taxonomists. We will recommend, through Mary Bergen, that such a partial specialization be attempted during Bight '98. Whether or not that recommendation is adopted remains to be seen.

In a positive aside, it was stated that the recommendation of the benthic analysis group, based on the 1994 SCBPP experience, that biomass information not be gathered from Bight '98 samples will be adopted. This will simplify the sample handling, reduce the QC load, and shorten the analysis time for each sample. The effort previously devoted to biomass could reasonably provide time for partial specialization.

We must await further developments with regard to identification and certification of participants, and finalization of the study plan by the Steering Committee.

UPCOMING MEETINGS

Our sister organization, NAMIT, has scheduled a meeting and workshop on Friday and Saturday 3 and 4 April. While the meeting topic has been established as "The Internet for Taxonomists" the topic groups for the workshop have not yet been finalized (ascidians and ostracods were suggested as possibilities). Contact Secretary Rob Gilmour for information at either rob@pentec.wa.com or (360)372-8704.

The Southern California Academy of Sciences annual meetings will be held at California State Polytechnic University, Pomona on 1-2 May. Scheduled symposia deal with Environmental Toxicology and Chemistry; Mechanisms of Metabolism and Locomotion in Fishes; Remote

Sensing and Ecological Monitoring; Marine Monitoring Approaches and Indicator Development; Science in the Entertainment Media; Wetlands Restoration; Ghost Dancing; Environmental Ethics and California Endangered Species Law at the End of the Twentieth Century; Minority Biomedical Research Support Program; Regenerative Studies: Technology, Education, and the Environment. For information on these symposia and the meetings in general try <http://www.intranet.csupomona.edu/~biology/scas/>, or Academy Vice-President David Huckaby at (562) 985-4869 or dhuckaby@csulb.edu.

This years joint American Malacological Union and Western Society of Malacologists meeting will be even larger than usual. A third joint session of the *Unitas Malacologica* will be added to form the World Congress of Malacology Meeting. This historic meeting will be held at the Smithsonian Institution 25-30 July 1998.

Three plenary symposia are scheduled: "Refining Molluscan Characters"(contact Tim Collins at collinst@servms.fiu.edu for information), "Interactions between Molluscs and Humans" (contact George Davis at davis@say.acnatsci.org for information), and "Bridging Temporal Scales in Malacology: uniting the living and dead" (contact Douglas Erwin at erwin.doug@nmnh.si.edu for information). Deadline for abstract submission for presenters is 1 April. Registration after 1 March will be considered late. For costs, and registration contact Robert Hershler at hershler.robert@nmnh.si.edu

First announcement has been received for the Fifth California Islands Symposium to be held at the Santa Barbara Museum of Natural History March 29 to April 1 1999. The meetings will be jointly sponsored by the museum and by the Minerals Management Service. Information on them is available at www.mms.gov/omm/pacific/public/public.html, from mitchellmbc@worldnet.att.net or (714)850-4830.

EL NIÑO NUOVO

Once again the El Niño strikes! This time with more southern shrimp introduced into our sampling area. CSDMWWDD personnel are wrestling with a very odd peneid shrimp, which has yet to be definitively identified, but seems to be a *Metapenaeopsis*; first record of any member of that genus from our waters.

The target shrimp, *Sicyonia penicillata* (see illustration on first page), taken in the Pt. Loma area last year and in the shallower waters of Santa Monica Bay, is now being taken in the Bay again. Hyperion personnel have taken 2 specimens this year at 16m and at 60m depth. Three specimens, including both a mature male and two mature females, were captured in south Santa Monica Bay during February trawling by CSDLAC. These are the first of this species taken in the monitored area in 25 years. Several specimens were taken in the Los Angeles - Long Beach Harbors complex in 1982-83 during an earlier warm-water influx, but none were taken off Palos Verdes or in Santa Monica Bay during that event.

Last year a single specimen of the pandalid shrimp *Plesionika beebei* was taken off Palos Verdes. We thought we had retaken it in February trawls, when a series of over a dozen *Plesionika* specimens were caught. Examination of the specimens in the lab showed them to be a different species, *Plesionika trispinus*. This species has not previously been reported from California waters, although it was included in the key of Wicksten (1978). The previous northern record was that of Hendrickx & Navarrete (1996) which listed it from 24°25' N. off the Pacific coast of southern Baja California. Specimens of this genus should only be identified to species in the laboratory, where the number of segments in the carpus of the second pereopods can be established.

Nearly half of the *Plesionika* specimens taken carried an epicarid isopod parasite of the family Dajidae. Butler (1980) illustrates the related *Holophryxus alaskensis* in place on the carapace of a hippolytid shrimp. Orientation and appearance of

the parasite on *Plesionika* is much the same as that shown for *Holophryxus*. The present parasite belongs in the genus *Zonophryxus* which, like the host shrimp, was not previously reported from California waters. It is likely that this is *Zonophryxus similis* Richardson 1914, but confirmation of this identification is necessary.

A number of large *Penaeus californiensis* and specimens of the penaeid *Solenocera mutator* are being taken in the San Diego area. A small penaeid taken off Palos Verdes, where *S. mutator* has been taken on two previous occasions, has been tentatively identified as *S. florea*. These two species are quite similar and may only be definitely separable when sexually mature. Our small specimen does not yet have sexual characters, but seems in other respects closest to *S. florea*. Enquiries have been made of Dr. Michel Hendrickx, who has seen thousands of these shrimp, as to the viability of non-sexual characters for separation of these two species. If verified, our tentative *S. florea* identification would be the first record of the species from California waters, and further testimony to the strength of the present ENSO event.

- Don Cadien (CSDLAC)

MODIFICATION OF BYLAWS

At our recent Executive Committee meeting it was suggested that the task of Newsletter Editor be removed from the duties of the Vice-President (as established in Bylaw 2 of the SCAMIT Constitution), and separated as an appointed position. This position (essentially a standing committee with a single member) would be filled by a member appointed by the Committee, and serving at their discretion until his/her removal or resignation.

Under the SCAMIT Constitution such a Bylaw change must be approved by a 2/3 majority of members voting on the issue before it can be incorporated. Members must be given at least 60 days notification of this vote. In consequence you are being provided with a separate ballot on the proposed modification of Bylaw 2 - Duties of

Officers, Section b - Vice-President (due back by 15 May 1998). Votes cast must be by means of paper ballots distributed to the membership. No electronic filing is admissible. If you are a member and did not receive your ballots in early March, please contact the secretary, or vice-president.

ELECTION OF OFFICERS

Nominations of 1998-1999 SCAMIT officers are now closed. Only a single nomination was made for each office (Secretary Cheryl Brantley was also nominated, but declined). Write-in candidates are welcome. After reviewing the attached candidate bios, please express your preference of the attached ballot and return it to the Vice-President by 31

March 1998. He will tabulate the votes and report the result via the March Newsletter in early April. The new slate of officers will take office at the end of April. Electronic filing is not an option, so please do not submit votes by E-mail; they will not be accepted.

VOUCHER SHEETS

Voucher sheets for three provisional polychaete species are included with this Newsletter. The animals were all discussed at previous meetings, but the sheets were not previously available. The sheets for the oeonid *Drilonereis* sp A, the flabelligerid *Pherusa* cf *negligens*, and the terebellid *Spinospaera* sp SD 1 are attached. The first is a SCAMIT designation, the other two are internal CSDMWWD designations.

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Please visit the SCAMIT Website at: <http://www.sccwrp.org/scamit/>

SCAMIT OFFICERS:

If you need any other information concerning SCAMIT please feel free to contact any of the officers.

			<u>e-mail address</u>
President	Ron Velarde	(619)692-4903	rgv@sddpc.sannet.gov
Vice-President	Don Cadien	(310)830-2400 ext. 403	cbrantley@lacs.org
Secretary	Cheryl Brantley	(310)830-2400 ext. 403	cbrantley@lacs.org
Treasurer	Ann Dalkey	(310)648-5544	cam@san.ci.la.ca.us

Back issues of the newsletter are available. Prices are as follows:

Volumes 1 - 4 (compilation).....	\$ 30.00
Volumes 5 - 7 (compilation).....	\$ 15.00
Volumes 8 - 15	\$ 20.00/vol.

Single back issues are also available at cost.

CANDIDATE BIOGRAPHIES

PRESIDENT

Ron Velarde

Ron is the current President of SCAMIT and a past Vice-President; he has been a Marine Biologist with the City of San Diego since 1983 and currently is the supervisor of Benthic Taxonomy for the Ocean Monitoring Program. His taxonomic interests include most groups, especially polychaetes and nudibranch mollusks. He earned his B.S. degree in Marine Biology from California State University, Long Beach, in 1976, and did post-graduate research on the systematics and ecology of autolytid polychaetes.

VICE-PRESIDENT

Don Cadien

Charter member of SCAMIT. Studied invertebrate taxonomy and biology at California State University, Long Beach, under Dr. D. J. Reish. Worked at Cabrillo Marine Museum, then at the L.A. County Museum of Natural History under Dr. J. H. McLean in Malacology. Spent 15 years at M.B.C. Applied Environmental Sciences as a taxonomist and later also Project Manager, leaving in 1989 as a Senior Marine Biologist to join the L.A. County Sanitation Districts' Marine Biology Lab. Specialties in taxonomy and biology of mollusks (particularly nudibranchs) and peracarid crustaceans. Currently a Research Associate in the Crustacea Section of the L.A. County Museum of Natural History.

SECRETARY

Megan Lilly

Graduated from Humboldt State University in 1991 with a B.S. in Marine Biology. From 1991 to 1993, worked at the Santa Barbara Museum of Natural History where I studied the taxonomy of marine mollusks under Dr. Eric Hochberg, Paul Scott, and Hank Chaney. Currently working as a marine biologist for the City of San Diego's Ocean Monitoring Program. Specialities include mollusks, with an emphasis on cephalopods, and echinoderms.

TREASURER

Ann Dalkey

Ann is presently the Treasurer for SCAMIT and has held this position since SCAMIT was founded. Ann is a member of the water biology staff at the Hyperion Treatment Plant where she specializes in the identification of polychaetes and amphipod crustaceans. Prior to working at Hyperion, Ann was a member of the laboratory staff at the County Sanitation Districts of Orange County. She worked there for nearly 10 years, reaching a position of senior laboratory and research analyst. She received her B.S. from California State University Long Beach in Marine Biology in 1974 and her M.S. from the same university in 1982. Her thesis research pertained to polychaete bioassay.

BALLOT FOR SCAMIT OFFICERS 1998-99

Vote for one (1) nominee for each office. Please mail or return completed ballot to Don Cadien by March 31, 1998. You may return it to the Secretary or other attending officer at the March meeting. The address to mail it to is:

Don Cadien
Marine Biology Laboratory
County Sanitation Districts
of Los Angeles County
24501 S. Figueroa Street
Carson, CA 90745

President - The president presides at all meetings and represents SCAMIT in external business affairs.

_____ Ron Velarde
_____ Write-in: _____

Vice-President - The Vice-President chairs ad hoc committees, supervises the specimen exchange, tabulates election ballots, edits the newsletter, and fills in for the President as necessary.

_____ Don Cadien
_____ Write-in: _____

Secretary - The Secretary keeps minutes of the meetings, is responsible for the newsletter, and preparation of the ballots.

_____ Megan Lilly
_____ Write-in: _____

Treasurer - The Treasurer collects dues, makes disbursements, keeps financial records, and makes an annual statement of the financial status of SCAMIT.

_____ Ann Dalkey
_____ Write-in: _____

1998-99 SCAMIT Meeting Topics - Please suggest any topics you deem worthy of a SCAMIT meeting.

Ballot for Amendment to Bylaw for Vice Presidential Duties

Bylaw 2: Duties of Officers

b) Vice-President - The Vice-President shall chair ad hoc committees, be responsible for tabulating and disseminating results of elections, votes on Bylaws, and Amendments to the Constitution; coordinate specimen exchange; arrange meetings and workshops; coordinate the preparation of voucher sheets, edit voucher sheets ~~and newsletters~~; and perform duties of the President during any period(s) when the President is unable to fulfill his or her duties as President of the Association.

Do you approve of the deletion above? Please Vote:

YES

NO

SCAMIT VOUCHER SHEET

Species name: *Drilonereis* sp A
Group: Family Oeononidae

Date Examined: 24 February 1998
Voucher By: D. Montagne

SYNONYMY: *Drilonereis* nr. *longa* Montagne 1982 §
Drilonereis longa of Hilbig 1995 not Webster 1879
Drilonereis longa of SCAMIT 1994 & 1996 not Webster 1879

DIAGNOSTIC CHARACTERS:

1. Prostomium a simple conical lobe, longer than wide, lacking eyes, (fig. 1) with two faint longitudinal grooves on ventrum.
2. Two peristomial segments weakly set off from prostomium (fig. 1).
3. Maxilla I falcate with 2-3 basal teeth; Maxilla II with 3-4 marginal teeth; Maxillae III and IV with single teeth. Paired maxillary carriers long, slender; unpaired carrier shorter and variable in development, ranging from slender style bearing a lanceolate head (fig. 2) to oval plate (see Hilbig 1995, pg. 331, fig 12.6.B). Mandibles reduced or, more typically, absent.
4. Anterior parapodia simple, reduced, lacking pre- or post-setal lobes. By setiger 15 very reduced, rounded post-setal lobes are present. Post-setal lobes increase in development in median segments (fig. 3A) and are accompanied by pre-setal lobes of equal length in posterior segments (fig. 3B).
5. Setae simple, bilimbate with long sinuous tips; present from first setigerous segment; accompanied by stout, distally pointed acicular spines (fig. 3A) in all but the posterior-most setigers (fig. 3B). The acicular spines extend well into the setal fascicle.

RELATED SPECIES AND CHARACTER DIFFERENCES:

Closely resembles *Drilonereis longa* Webster 1879, from which it differs in the number of teeth on Maxilla II (3-4 vs 6-8). See SCAMIT Newsletter 14 (11), March 1996 for a discussion of L. Harris' reexamination of the holotype of *D. longa*. *Drilonereis* sp A is also greatly smaller in size. Pettibone (1963) refers to specimens from the East Coast as reaching 710 mm long and bearing up to 1000 segments. The length of specimens of *D. longa* from the Virginia coast examined by the writer exceeded 150 mm. Typical *D. sp A* from southern California are under 50 mm in length. In addition, *D. sp A* is frequently taken as an endoparasite in the cirratulid *Aphelochaeta*, a behavior not reported for *D. longa*.

DISTRIBUTION:

Shelf depths from San Diego to Santa Maria Basin.

COMMENTS:

Several genera within the Oeononidae are known to live as endoparasites of other polychaetes. However, this behavior has not previously been reported in the genus *Drilonereis*. Oeononids are reported to parasitize polychaetes in the families Eunicidae, Onuphidae, Terebellidae, Spionidae, Syllidae and Nereididae. There are also reports of pholadid bivalves and bonelliid echiurans as hosts. *Drilonereis* sp A is the first member of its genus to be reported as an endoparasite. Cirratulid polychaetes in the genus *Aphelochaeta* act as host. On the Palos Verdes shelf, it has been observed to parasitize two species; *Aphelochaeta glandaria* and, more commonly, *Aphelochaeta* sp A (previously reported locally as *A. marioni*). An *Aphelochaeta* appears to host only a single specimen, which is invariably facing posteriorly within the coelom. Specimens of *D. sp A* are frequently found protruding from anterior fragments of *Aphelochaeta* (fig. 4), or with a few segments of an *Aphelochaeta* encircling the body. Occasionally specimens may be detected completely incased within the host (fig. 5). The *Drilonereis* attains a size that fills the coelom. Given the relative size, greater muscularity, and setal armature of the parasite, the host must be substantially compromised. There appears to have been little morphological accommodation by *D. sp A* to its parasitic life, suggesting that it may be a stage of development leading to life outside the host. Specimens have been collected in an apparently free-living state, however, they do not differ from nor are they substantially larger than those found within the *Aphelochaeta*. There is no quantitative measure of infection rate but, on the Palos Verdes shelf where both *Aphelochaeta* sp A and *A. glandaria* are very abundant, it is estimated that fewer than 1% contain *Drilonereis* sp A as a parasite.

LITERATURE:

- HILBIG, B. 1995. Family Oeononidae Kinberg, 1865, emended Orensanz, 1990. In: Blake, J. A., B. Hilbig, and P. H. Scott (eds). *Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Vol 5. The Annelida Part 2*. Santa Barbara, CA. 315-340.
- PETTIBONE, M. 1963. Marine Polychaete Worms of the New England Region. I. Aphroditidae through Trochochaetidae. United States National Museum bulletin 227: 1- 356.
- SCAMIT. 1994. A Taxonomic Listing of Soft Bottom Macroinvertebrates from Infaunal Monitoring programs in the Southern California Bight. Edition 1. San Pedro, CA. 72 pages.
- SCAMIT. 1996. A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates from Infaunal & Epifaunal Monitoring programs in the Southern California Bight. Edition 2. San Pedro, CA. 86 pages.
- WEBSTER, H. 1979. Annelida Chaetopoda of the Virginia coast. Transactions of the Albany institute 9: 202-272.

ILLUSTRATIONS: *Drilonereis* sp A SCAMIT 1998 §

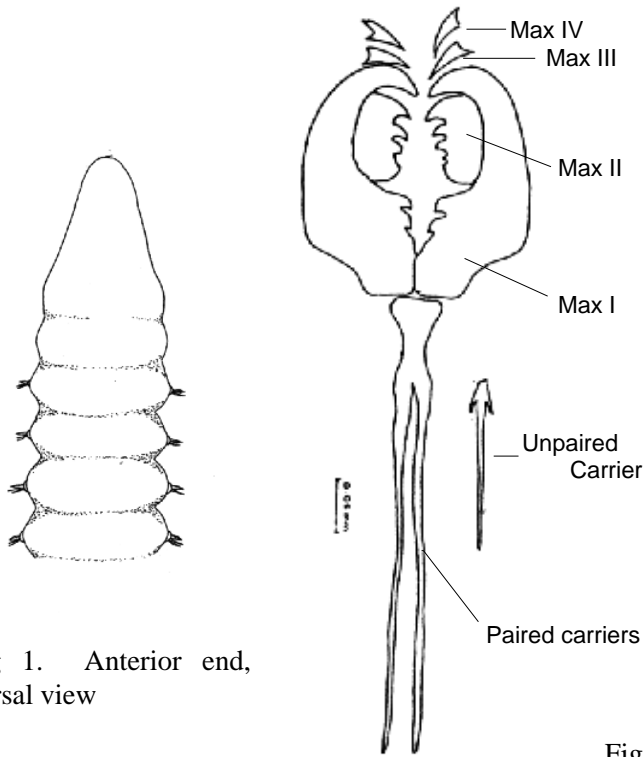


Fig 1. Anterior end, dorsal view

Fig 2. Maxillary Apparatus

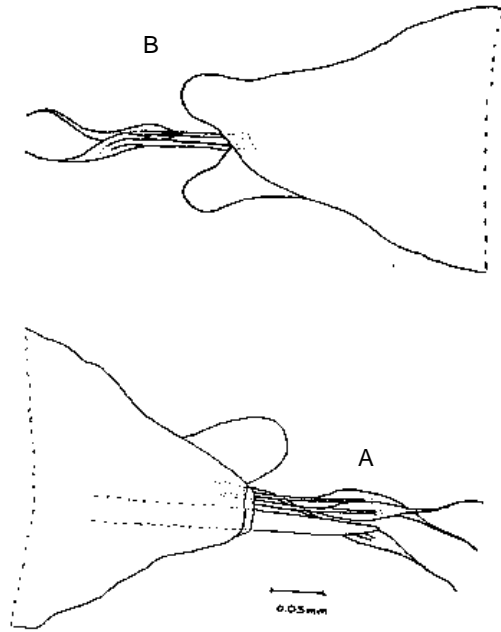


Fig 3. A. Parapodium, 57th setiger, dorsal view. B. Parapodium, 108th setiger, dorsal view.

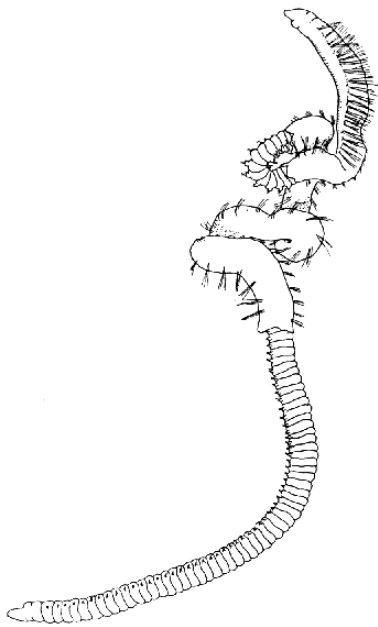


Fig 4. *Drilonereis* sp A protruding from the body cavity of its host, *Aphelochaeta* sp.

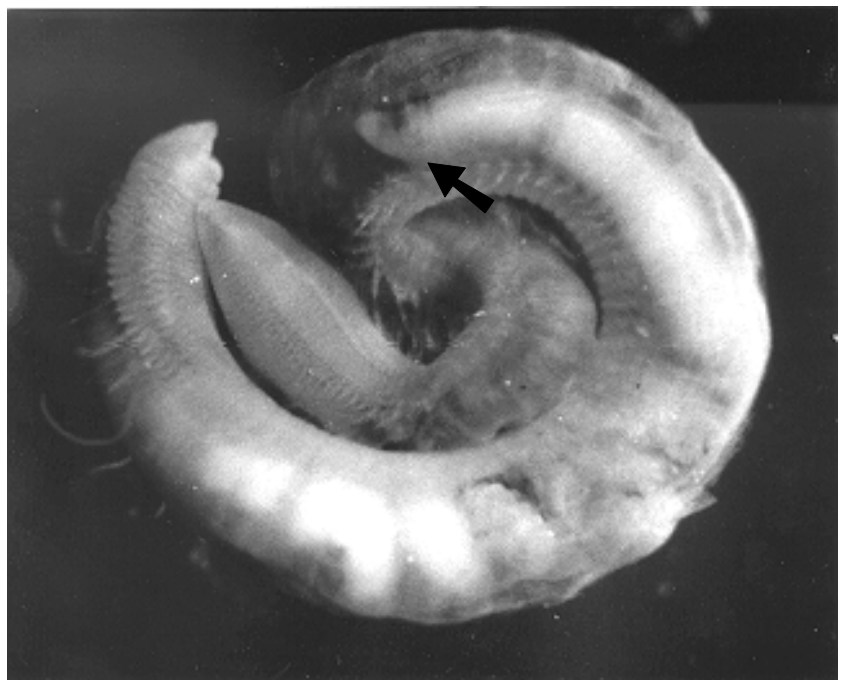


Fig 5. *Drilonereis* sp A coiled within the body cavity of its host *Aphelochaeta* sp. The arrow points at the prostomium of the *Drilonereis*. Its pygidium extends into the anterior-most setigers of the host

City of San Diego

PROVISIONAL SPECIES WORKSHEET**Provisional Name:** *Pherusa cf negligens***Authority:** [*P. negligens* (Berkeley & Berkeley, 1950)]**Taxon:** Annelida:Flabelligeridae**Taxonomist:** R. Rowe/ R. Velarde**Date:** 2July1996**Common Synonyms:**Originally as *Stylarioides negligens***Specimen(s):** STATION DATE DEPTH STORAGE LOCATION VIAL #

STATION	DATE	DEPTH	STORAGE LOCATION	VIAL #
Pt. Loma B-11rep.1	4/5/96	288ft.	DLZ	#1065
E-9 rep.1	7/11/96	380ft.	DLZ	#1065

Characters: [The specimen described is ~1.0mm at widest point (setiger 6-7) and a 14 segment fragment]

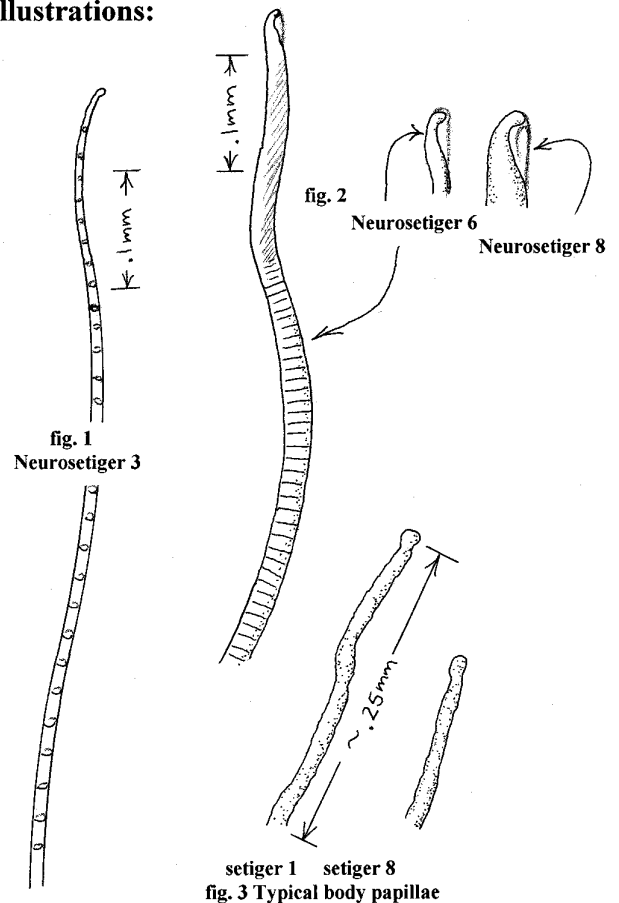
Cephalic cage formed of setae from the first three setigers (~10-15 setae). The longest setae approximately same length as first nine setigers.

Notosetae are long strongly striated capillaries (~8 per fascicle and approximately as long as maximum body width).

Neurosetae on anterior setigers are long and tapering with striations similar to notosetae, but most with fine, hooded, falcate tips. (fig. 1)

After setiger 5 neurosetae becoming thicker and heavier with more closely spaced striations (setal segments approximately as long as wide) and with distal third smooth and flattened with hooded tip. (fig. 2)

Body with many long, filiform papillae whose lengths can reach nearly one half of the greatest body width. (fig. 3)

Illustrations:

All figures original

Related Species & Other Comments:

Piromis sp A- has shorter, thicker body papillation and bifid (not hooded) neurosetae

Pherusa spp- our local species have simple, falcate neurosetae (the status of *P. capulata* is uncertain.....and at least in part may be synonymous with *Piromis* sp A)

References:

Berkeley, E. and C. Berkeley. 1950. Notes on polychaeta from the coast of western Canada. IV.

Polychaeta Sedentaria. Ann. Mag. Nat. Hist. Ser.12, 3:58-59.

Hobson, K.D. 1974 Can. J. Zool. 52:70-71.

Hobson, K.D. and K. Banse. 1981. Sedentariate and archiannelid polychaetes of British Columbia and Washington. Can. Bull. Fish. Aquat. Sci. 209:pg. 58

City of San Diego
PROVISIONAL SPECIES WORKSHEET

Provisional Name: *Spinospaera* sp SD 1**Taxon:** Terebellidae**Taxonomist:** R. Rowe**Authority:****Date:** 30 May 1997**Common Synonyms:**

Specimen(s):	STATION	DATE	DEPTH	STORAGE	LOCATION	VIAL #
City San Diego	B-11rep2	4/8/97	290ft.		DLZ	#2006
	B-11rep1	4/8/97	290ft/		DLZ	

Characters: (B-11 rep 2 4/8/97 Small, anterior fragment of thoracics (~4mm length) and 2 abdominal setigers. B-11 rep 1 4/8/97 Nearly entire, with ~100 abdominal setigers and thorax ~6mm in length)

Peristomial ridge with 7-10 small eyespots on each side (dorsolaterally)

20 thoracic setigers

Long (see fig. 1) and short thoracic notosetae with serrate distal portion; swollen, bulbous, spinous midregion; and bilimbate basal portion

Uncini with a large fang and many small teeth in a crest

Uncini arranged:

- 1st setiger with no uncini
- next 6 setigers with uncini in single rows
- next 12 setigers with uncini in double rows
- last thoracic setiger with uncini in single rows

Methyl green stain:

no distinct pattern, some stain concentrated on ventral scutes of anterior thorax and between setal fascicles in the thorax

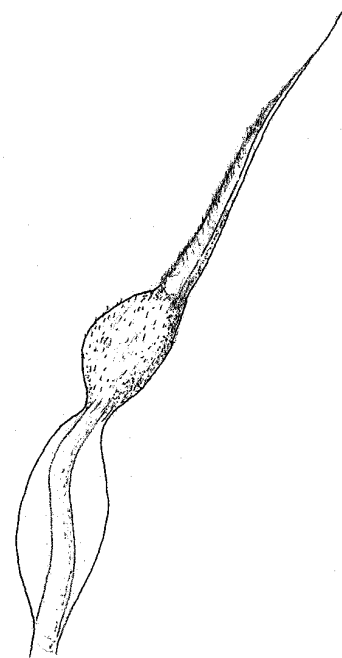
Illustrations:

fig.1 long thoracic notosetae

Figure original

Related Species & Other Comments:

Spinospaera oculata- has 41 thoracic setigers, eyespots, and less swollen notosetae (See Hartman, 1944 p.274-275 and plate 22, figs. 33-36)

Spinospaera pacifica- has no eyespots

References:

Hartman, O. 1944. Polychaetous annelids from California. Allan Hancock Pac. Exp. 10(2):274-275.

Hobson, K.D. and K. Banse. 1981. Sedentariate and archiannelid polychaetes of British Columbia and Washington. Can. Bull. Fish. Aquat. Sci. 209: page 94 (figure).